

- 1/1
1. a) Type #1
 - b) 0
 - c) $5/k$
 - d) $k \geq 100$

2. $k \geq 10.25$

3. For $k \geq 100$

4. a) $\frac{1}{s^2 + 5s + k}$

b) 0.1

c) No, b/c output is corrupted.

- 1/2
1. Use block diagram reduction + algebra.
 2. Yes, b/c Hurwitz criterion are met

- 1/3
1. $k < -3/4$ for Hurwitz criterion
 2. a) 2 poles in RHP
 - b) $k > 18$

Bonus:

